



Janet Napolitano
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov



Stephen A. Owens
Director

September 8, 2008

John Bunyak
Air Resources Division
National Park Service
P.O. Box 25287
Denver, Colorado 80225

Dear Mr. Bunyak:

Thank you for the opportunity to comment on the proposed revisions to the Federal Land Managers Air Quality Related Values Workgroup (FLAG) Report, which are as follows:

Regulatory Developments Since FLAG 2000

This section (pages 8 and 9) will also need to address the vacatur of CAIR by the D.C. Circuit Court of Appeals, and, if legislation preserves some or all of the CAIR requirements, will need to be revised accordingly.

Responsibilities of FLMs and Permit Applicants

The draft states that it is the responsibility of the FLMs to conduct an AQRV impact analysis:

Page 13, b1, "...for the FLM to conduct an AQRV analysis"; (analysis review?)

Page 13, b2, "AQRV impact analysis ...and is the responsibility of the FLM";

Page 14, "...to enable the FLM to conduct the AQRV impact analysis";

"... the AQRV impact analysis that FLM perform";

"FLM usesto conduct the AQRV impact analysis".

According to EPA's *New Source Review Workshop Manual*, however, the permit applicant should perform AQRV-related analyses and assess the source's anticipated impact on visibility and other AQRVs (Chapter E). The statements in the draft that the FLM conducts an AQRV impact analysis may be misleading, since it is the responsibility of the permit applicant rather than the FLM to predict the changes in pollutant concentrations, deposition rates, or visibility extinction, which are key parameters for an AQRV analysis. The FLAG report should clarify that the permit applicant must conduct an AQRV impact analysis as part of a complete application but it is the responsibility of the FLM to make a determination regarding possible AQRV adverse impacts.

Other Air Quality Review Considerations (Section B.3.)

Subsection b. Requesting SIP Revisions to Address AQRV Adverse Impacts needs to acknowledge that the NOx SIP call has been implemented.

Application of CALPUFF in Visibility Impact Analysis

The draft requires the permit applicant to use VISCREEN or PLUVUE-II to model the impact of a source closer than 50 km to a Class I area. FLAG may want to consider adding CALPUFF as an option for the near-field analysis because:

- In the draft, FLAG has made significant revisions for the visibility impact analysis based on the EPA's BART Guidelines. Considering CALPUFF as an option for the near-field analysis will be consistent with the recommendations from the EPA's BART Guidelines, "we proposed that States use their discretion in determining visibility impacts, giving consideration to both CALPUFF and other EPA-approved methods".
- CALPUFF is suitable for the near-field analysis. After reviewing CALPUFF's application and limitations in the BART analysis, Visibility Improvement State and Tribal Association of the Southeast (VISTAS) concluded that, "there do not appear to be any scientific reasons why CALPUFF cannot be used for even shorter transport distances than 30 km". In comparing CALPUFF with PLUVUE II, VISTAS also suggested that, "CALPUFF seems more appropriate than PLUVUE-II for evaluating source impact at short distances for BART assessment purposes".
- In situations where the source-receptor distance includes both of short distances (within 50 km) and large distances (greater than 50 km), the use of the same model (CALPUFF) could be preferable for consistency in the visibility impact analysis (for example, to compare impacts of a proposed source on two or more Class I areas).

Impacts of Ozone on Vegetation

- Ozone Exposure Level in the FLAG report should be defined or explained. Is the document referring to the peak level, the time average level, the cumulative level, or the weighted level? Several index forms such as SUM06 and W126 should be introduced and their applications and limitations should be discussed.
- It may be premature to assess the potential ozone effects from a new emission source based on Figure O-1, Since FLAG does not provide any guidance for modeling and predicting the ozone exposure level. It is also impracticable for permit applicants to calculate the ozone exposure values as stated in the last sentence on Page 78.
- Phytotoxic ozone levels from the EPA's Ozone OAOPS Staff Paper should be included in an Appendix.
- FLAG may need to consider the dose-based approach as an option to assess the impacts of ozone on vegetation, since the potential injury and damage of ozone to vegetation are directly related to plant uptake of ozone. The exposure-based approach is relatively simple, but it does not consider plant defensive mechanisms such as the interaction of the daily cycles of ozone concentration and plant stomatal conductance.

Impacts of Deposition on AQRVs

- To estimate the current deposition rates, FLAG recommends averaging data from a monitoring site using for all years with complete data records. This may lead to an overestimate of the current S deposition rates, since rates have decreased significantly across the country within the past 20 years. On the contrary, the average value for all years may underestimate the current N deposition in many areas, particularly in the west. It is suggested to use the latest 5 years of data to estimate the current S or N deposition rates.

Language should be added to address that DAT/concern threshold is a deposition rate that triggers a management, not necessary an adverse impact threshold. It is inappropriate to determine whether a proposed source has a potential impact on AQRVs by simply comparing the future deposition rate with DAT/concern threshold (Page 104, Summary 3).

We are pleased that this guidance document is being updated and made available for review and comment, and encourage the FLAG Workgroup to revise or append the guidance in a timely fashion after any PSD regulations or related guidance that affect AQRV analyses are changed.

Sincerely,



Nancy C. Wrona, Director
Air Quality Division

c: Chris Shaver, National Park Service